



National Transportation Safety Board Aviation Incident Final Report

Location:	NEW ORLEANS, LA	Incident Number:	FTW881A109
Date & Time:	05/24/1988, 1255 CDT	Registration:	N75356
Aircraft:	BOEING 737-3T0	Aircraft Damage:	Minor
Defining Event:		Injuries:	45 None
Flight Conducted Under:	Part 129: Foreign		

Analysis

DRG DSCNT FM FL 350 FOR IFR ARR TO NEW ORLEANS, FLT CREW NOTED GREEN & YELLOW RTRNS ON WX RADAR WITH SOME ISOLATED RED CELLS, LEFT & RGT OF INTENDED FLT PATH. BFR ENTERING CLOUDS AT 30,000', CAPT SLCTD CONTINUOUS ENG IGNITION & ACTIVATED ENG ANTI-ICE SYS. CREW SLCTD ROUTE BET 2 CELLS, DISPLAYED AS RED ON WX RADAR. HVY RAIN, HAIL & TURBC WERE ENCTR. AT ABT16,500', BOTH ENGS FLAMED OUT. APU WAS STARTED & AC ELEC PWR WAS RESTORED WHILE DSCNDG THRU ABT 10,600'. ATMTS TO WIND- MILL RESTART WERE UNSUCCESSFUL. BOTH ENGS LIT-OFF BY USING STARTERS, BUT NEITHER WOULD ACCELERATE TO IDLE; ADVNG THRUST LEVERS INCREASED EGT BYD LIMITS. ENGS WERE SHUT DOWN TO AVOID CATASTROPHIC FAILURE. EMERG LNDG WAS MADE ON LEVEE W/O FURTHER DMG TO ACFT. INV REVEALED ACFT ENCTR LVL 4 TSTM, BUT ENGS FLAMED OUT, THOUGH THEY HAD MET FAA SPECS FOR WATER INGESTION. ACFT HAD MINOR HAIL DMG; #2 ENG WAS DMGD FM OVERTEMP. AFTER INCIDENT, OMB 88-5 & AD 6-14-88 ISSUED TO RQR MINRPM OF 45% & TO RESTR USE OF AUTOTHURST IN MOD/HVY PRECIP; ENG MOD WAS PROVIDED FOR INCREASED CPTY OF WTR INGESTION.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this incident to be: A DOUBLE ENGINE FLAMEOUT DUE TO WATER INGESTION WHICH OCCURRED AS A RESULT OF AN INFIGHT ENCOUNTER WITH AN AREA OF VERY HEAVY RAIN AND HAIL. A CONTRIBUTING CAUSE OF THE INCIDENT WAS THE INADEQUATE DESIGN OF THE ENGINES AND THE FAA WATER INGESTION CERTIFICATION STANDARDS WHICH DID NOT REFLECT THE WATERFALL RATES THAT CAN BE EXPECTED IN MODERATE OR HIGHER INTENSITY THUNDERSTORMS.

Findings

Occurrence #1: IN FLIGHT ENCOUNTER WITH WEATHER

Phase of Operation: DESCENT - NORMAL

Findings

1. (F) FLIGHT INTO KNOWN ADVERSE WEATHER - CONTINUED - PILOT IN COMMAND
2. (F) WEATHER CONDITION - THUNDERSTORM
3. (F) WEATHER CONDITION - RAIN
4. (F) WEATHER CONDITION - HAIL
5. (F) WEATHER CONDITION - TURBULENCE

Occurrence #2: LOSS OF ENGINE POWER(TOTAL) - NONMECHANICAL

Phase of Operation: DESCENT - NORMAL

Findings

6. ALL ENGINES
7. (C) MISCELLANEOUS - WATER
8. (C) POWERPLANT - INOPERATIVE
9. (F) ACFT/EQUIP,INADEQUATE DESIGN - MANUFACTURER
10. (F) INADEQUATE CERTIFICATION/APPROVAL,AIRCRAFT - FAA(ORGANIZATION)

Occurrence #3: FORCED LANDING

Phase of Operation: DESCENT - EMERGENCY

Findings

11. STARTING PROCEDURE - ATTEMPTED
12. POWERPLANT - OVERTEMPERATURE
13. EMERGENCY PROCEDURE - PERFORMED

Factual Information

Pilot Information

Certificate:	Airline Transport; Foreign	Age:	29, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt, Shoulder harness
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 1 Valid Medical--w/ waivers/lim.	Last FAA Medical Exam:	03/01/1988
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:	13410 hours (Total, all aircraft), 4011 hours (Total, this make and model), 10900 hours (Pilot In Command, all aircraft), 240 hours (Last 90 days, all aircraft), 85 hours (Last 30 days, all aircraft), 6 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Manufacturer:	BOEING	Registration:	N75356
Model/Series:	737-3T0 737-3T0	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Transport	Serial Number:	23838
Landing Gear Type:	Retractable - Tricycle	Seats:	146
Date/Type of Last Inspection:	05/20/1988, Continuous Airworthiness	Certified Max Gross Wt.:	135500 lbs
Time Since Last Inspection:	10 Hours	Engines:	2 Turbo Fan
Airframe Total Time:	81 Hours	Engine Manufacturer:	GE
ELT:	Installed, not activated	Engine Model/Series:	CFM56-3B1
Registered Owner:	POLARIS AIRCRAFT LEASING CORP.	Rated Power:	20000 lbs
Operator:	TACA INTERNATIONAL AIRLINES	Operating Certificate(s) Held:	
Operator Does Business As:		Operator Designator Code:	TAIF

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	NEW, 9 ft msl	Observation Time:	1253 CDT
Distance from Accident Site:	5 Nautical Miles	Direction from Accident Site:	300°
Lowest Cloud Condition:	Unknown / 0 ft agl	Temperature/Dew Point:	25° C / 22° C
Lowest Ceiling:	Broken / 4500 ft agl	Visibility	8 Miles
Wind Speed/Gusts, Direction:	10 knots, 170°	Visibility (RVR):	0 ft
Altimeter Setting:	29 inches Hg	Visibility (RVV):	0 Miles
Precipitation and Obscuration:			
Departure Point:	BELIZE CITY, OF (BZE)	Type of Flight Plan Filed:	IFR
Destination:	(MSY)	Type of Clearance:	IFR
Departure Time:	1055 CDT	Type of Airspace:	TRSA

Wreckage and Impact Information

Crew Injuries:	7 None	Aircraft Damage:	Minor
Passenger Injuries:	38 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	45 None	Latitude, Longitude:	

Administrative Information

Investigator In Charge (IIC):	WARREN V WANDEL	Adopted Date:	03/25/1991
Additional Participating Persons:	JOHN ABEL; BATON ROUGE, LA		
Publish Date:			
Investigation Docket:	NTSB accident and incident dockets serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at pubinq@ntsb.gov , or at 800-877-6799. Dockets released after this date are available at http://dms.nts.gov/pubdms/ .		

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